Running head: Differences in TRICARE Beneficiary Knowledge

U.S. Army-Baylor University Graduate Program in

Healthcare Administration

Graduate Management Project

Differences in TRICARE Knowledge from Department of Defense

Active Duty Family Member Beneficiaries

Presented to A. David Mangelsdorff, Ph.D.

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by

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Abstract

Differences in Active Duty Family Member (ADFM) self-reported knowledge of the Department of Defense's TRICARE program, were investigated. The sample includes ADFMs residing in TRICARE regions 6, 9, 10, 11 and 12 (n = 3,612) and their responses to the 1996 Health Care Survey of Department of Defense (DoD) Beneficiaries (HCSDB). Self-reported knowledge of TRICARE, use of beneficiary marketing and educational methods, and enrollment in TRICARE Prime were investigated. Statistically significant relationships were found to exist between: ADFM TRICARE program knowledge and: (a) the number of methods used to learn about TRICARE $t(3590) = 40.53$, $p < .0001$ and (b) the type of method used to produce the highest levels of self reported TRICARE knowledge ($p < .0001$). The top three methods for generating the highest self reported TRICARE program knowledge were: (a) reading the TRICARE information packet mailed home, (b) attending a TRICARE beneficiary presentation, and (c) calling the TRICARE information number. Additionally, statistically significant relationships were found to exist between TRICARE Prime enrollment and: (a) TRICARE knowledge levels, $p < .01$ (Spearman's correlation coefficient = 0.357), (b) the number of TRICARE learning methods used, $t(3003) = 22.91$, $p < .001$, and (c) beliefs of the ADFM toward TRICARE, such that those ADFMs who believed they had clear information on enrollment procedures or they knew how to make an

appointment under TRICARE Prime scored the highest correlations (Spearman's rho = 0.418 and 0.373 respectively) with $p < .001$.

Table of Contents

List of Tables

List of Figures

Introduction

Conditions Which Prompted the Study

The Military Health System (MHS) is confronting one of its greatest management challenges during this time of significant reform initiatives. Downsizing of the Department of Defense (DoD) in the 1990's has produced operational and functional changes within the MHS in an attempt to cope with a myriad of cost, quality and access challenges that have plagued the industry of health care for decades. In an effort to provide uniform benefits for eligible beneficiaries DoD is in the final stages of implementing the TRICARE program, a congressionally mandated, regional managed health care program for almost nine million beneficiaries. The importance of TRICARE succeeding cannot be overestimated for its 8.7 million beneficiaries and those committed to public service within MHS: "For military medicine to survive, TRICARE must succeed" (U. S. Department of Defense, 1996). Effective marketing and patient education opportunities are tools that must be exploited to ensure this goal is achieved (Roark and Tucker, 1997).

To measure beneficiary attitudes toward military medicine, and their knowledge of the TRICARE program, Public Law 102-484 (10 USC 1071), Section 724 of the FY 1993 Defense Authorization Act was enacted. This Act permitted DoD to collect information requested in annual health care surveys of DoD beneficiaries concerning all aspects of delivering its health care (1993). Congress mandated

the data from the surveys be employed in DoD's preparation of an annual report to Congress. Nineteen ninety-six is the most current year for which such survey information is available. The results from the annual surveys will permit health policy makers to learn more about the military health care system, assist in the formulation of policies that may be needed to improve the system, and finally, as indicated above, to ensure the survival of military medicine.

In this regard, it is imperative health policy makers understand the relationships between: (a) the dependent variable of TRICARE knowledge level and the independent variables of the number of methods used to learn about TRICARE (quantitative) and the specific type of methods used (qualitative); and (b) the dependent variable of TRICARE Prime enrollment and the independent variables of ADFM TRICARE knowledge levels (quantitative), the number of methods used by ADFMs (qualitative) to learn about TRICARE, and ADFM beliefs and perceptions toward the TRICARE program.

The focus of this management project is on ADFMs residing in regions where TRICARE Prime was offered for at least six months, and their responses (n = 3,612) to the 1996 Health Care Survey of Department of Defense (DoD) Beneficiaries (HCSDB) relative to their self-reported knowledge level of the TRICARE program (U.S. Department of Defense, 1996). Relationships disclosed by this management project revealed critically important marketing mix

strategies and beneficiary educational instruments that need to be developed, refined and implemented by military health care policy makers to ensure survival of TRICARE military medicine as we know it today. In this regard, the MHS shares the vision of all managed care organizations: to provide the right amount of care, at the right time, at the right place, and to the right beneficiary.

A thorough understanding of TRICARE is required before analysis of the management problem can be discussed. TRICARE is managed by the military in partnership with civilian contractors. TRICARE began in March, 1995 in Region 11 (Oregon and Washington). Each of the 10 continental US regions has a Lead Agent, who is a commander of a military treatment facility and is responsible for overseeing the program. TRICARE is designed to expand access to care, assure high quality care, control health care costs for patients and taxpayers, and improve medical readiness (U.S. Department of Defense, 1996).

The program offers three options: (a) TRICARE Prime, a Health Maintenance Organization-like option utilizing Military Treatment Facilities (MTFs), (b) TRICARE Extra, a preferred provider organization, and (c) TRICARE Standard, which retains standard the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) features. Since MTFs are the most cost-effective sites to deliver care, the TRICARE Prime benefit is designed to first maximize the use of MTFs for Prime enrollees in order to meet

legislative cost parameters. As a result of: (a) 32 percent

reduction in the medical force structure, (b) increasing numbers

of retiree eligibles (retirees represented only 8 percent of

eligibles in the 1950's; now they represent 50 percent of those

eligible), and (c) closure of MTFs, there are fewer space-

available appointments in MTFs for non-active duty beneficiaries

who are not enrolled in TRICARE Prime.

The primary challenge for most beneficiaries is deciding which

TRICARE program is best for them: Prime, Extra or Standard. A

significant challenge for all those in the MHS is developing

effective marketing and educational mechanisms to ensure

beneficiaries have sufficient knowledge, motivation and

opportunity to make the appropriate decision for themselves and

their family members.

A critical implied mission of the MHS is to ensure the

beneficiary is provided adequate information to make the most

appropriate health care decision. Interactions between the

employees of the MHS and the beneficiary can be characterized as a

continuum of information (Martin, personal communication,

September 2, 1997), complete with infinite informational and

educational opportunities over time. The points on the continuum

are interaction points, or more appropriately, teachable moments

whereby all MHS employees (not just providers) have an opportunity

to impart quality health and health services related information

to beneficiaries (Eitzen, personal communication, October 3,

1997). There are many opportunities whereby providers, and others can interact with beneficiaries to educate and inform them along the continuum. The result is an educated, healthier and more efficient consumer of finite health resources who consistently seeks a level of health services appropriate to the severity of the medical condition (Bunn, 1994).

Statement of the Problem

Since inclusion of TRICARE questions in the 1996 HCSDB, the potential for exhaustive dissection of the annual HCSDB data set continues to exist. Revelation of statistically significant relationships from ADFM responses relative to TRICARE knowledge, TRICARE learning methods and TRICARE Prime enrollment may await disclosure. These relationships should be exploited by senior healthcare policy analysts within the MHS to appropriately focus finite resources to educate ADFMs and increase TRICARE Prime enrollment.

This graduate management project attempts to focus on ADFMs residing in regions where TRICARE prime has been offered for six months prior to returning completed surveys (i.e., TRICARE regions 6, 9, 10, 11 and 12), and their responses (n = 3,612) to the 1996 HCSDB relative to their self-reported knowledge level of the TRICARE program (U.S. Department of Defense, 1996). Specifically, what are the relationships between:(a) the dependent variable of TRICARE knowledge level and the independent variables of the number of methods used to learn about TRICARE (quantitative) and

the specific type of methods used (qualitative); and (b) the
dependent variable of TRICARE Prime enrollment and the independent
variables of ADFM TRICARE knowledge levels (quantitative), the
number of methods used by ADFMs (qualitative) to learn about
TRICARE, and ADFM beliefs and perceptions toward the TRICARE
program.

Literature Review

The rising costs of health care have led health care managers
and policy makers to view consumers' use of information as an
important element in containing costs (Eisenberg, 1997).
Controlling the demand for health care by educating consumers to
be more efficient users of the health care system appears to be an
effective approach. Managing the health of consumers through
effective health promotion and wellness programs is quite popular.
The current literature is replete with research and program
success stories describing the benefits of health promotion and
wellness programs to include reduced demand on health services
(Wetzler and Cruess, 1985; Hodgson, 1992; Fiscella and Franks,
1996; Harris, Randolph, White, Stane and Harper, 1996; Jacobs,
1996; Leigh and Fries, 1992; and Vickery, Kalmer and Lowry, 1993).
These health promotion and wellness programs attempt to raise
participant's awareness of the health-related effects of their
lifestyle choices. The literature also includes providing
consumers a wealth of information to permit them to evaluate their
health care choices, to include that of non-clinical information.

Bunn (1994) stated that health care decisions belong to the category of credence goods; that consumers are often unable to evaluate choices effectively and the opportunity is high for instances of poor consumer choices. He also indicated that health information represents one of the greatest difficulties for both consumers and health care marketers, and suggests that marketing managers need to know much more about the specifics of how consumers actually search for health information.

Civilian health care leaders use marketing tools to protect their market share. For TRICARE to succeed it is imperative military health care leaders understand marketing concepts and practices. Schoell and Guiltinan (1995) defined marketing as: "the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives" (p. 5). Roark and Tucker (1997) stated that military health leaders must understand marketing variables to increase beneficiary satisfaction and honor its obligations to care for family members and a growing retiree population. They present a scenario that should the military provide a less than optimal TRICARE program: (a) intense Congressional pressure will fall upon the military leaders, followed by (b) perceptions among all beneficiaries that the military does not honor its obligations, resulting in (c) increasing interests of the private sector in the pool of revenue created by almost 9 million beneficiaries (Roark

and Tucker, 1994). Roark And Tucker clearly state the gravity of the situation (1997): "Appropriate adoption of health care marketing techniques is a prudent way for the military health care system to hedge against unwanted interventions by other stakeholders and increase overall satisfaction rates" (p. 544). McCarthy (1960) is largely credited with development of the "four P's of marketing strategy": (a) price, (b) place, (c) promotion, and (d) product. In studying the level of knowledge DoD beneficiaries have about the TRICARE program, the marketing variable of promotion becomes most important. Lamb (1994) coined the term "promotion mix" (p.494) as a combination of advertising, personal selling, sales promotion and public relations.

Berkowitz (1996) described advertising as a direct paid form of nonpersonal presentation of goods, services or ideas. Examples of advertising include television and radio commercials announcing the special services of a local hospital. Burns (1992) described successful advertising through a venture between a Coral Gables, Florida hospital and a local Hispanic television station to produce a weekly information show for the Hispanic community in southern Florida. In today's computer savvy world establishment of a world wide web home page for many health care organizations is also a form of advertising (Prescott, 1996). Shepard and Fell (1997) estimated a 25 percent annual growth rate in the number of hospitals using the Internet for marketing efforts. The second promotion mix strategy, personal selling, is the paid personal

presentation of goods, ideas, or services. Personal selling can build an important relationship between consumer and seller, or health care provider and patient. It's different than the mass communication of advertising, in that personal selling can be targeted at a specific individual or group of individuals. Koehler and Van Marter described a case study whereby the Calhoun County Medical Society (CCMS) in Alabama developed a three-pronged medical marketing program to improve its image (1995). Through development of a word of mouth campaign and a showing of county physician interests in the health status of their county residents (i.e., personal selling), patient attitudes quickly improved toward the CCMS.

Sales promotion, the third tool in the promotional mix, involves temporary inducements to buy. Examples include hospitals, HMO's and even physicians using discounts and freebies such as merchandise to sell their services (Galuszka, 1997). Lastly, public relations, the fourth promotional mix tool, is most common to health care organizations. Public relations are an indirect paid form of presentation of goods, ideas or services. The military employs specialists termed public affairs officers to coordinate with the media and publicize stories about the organization. Public affairs officers and marketers must combat the onslaught of managed care bashing due to perceptions of cost-shifting, denying benefits, denying liability, and gag rules. MacStravic (1997) promotes improving public relations by

establishing health improvement programs, self-care training and disease management programs.

The effectiveness of the promotion mix is a function of communication. Berkowitz (1996) describes communication as a process between sender and receiver, which includes the functionalities of sender encoding, communication channels employed, and receiver decoding. Distractions are termed "noise", and as with most processes the feedback loop is required. For the MHS an effective analysis of the results of the 1996 HCSDB is the feedback loop in the communications process. As stated earlier, this effort has not been exhaustively accomplished prior to this graduate management project relative to effective beneficiary marketing/educational strategies of TRICARE. It is interesting to note that the DoD 1996 TRICARE Marketing Plan does not contain references to the four P's, nor the four components of the marketing mix. However the authors do indicate that the "future of military medicine requires an immediate proactive approach to marketing TRICARE" (U.S. Department of Defense, 1996). Korsch (1989) used the term health care communication to describe all the types of communication variables and sources involved with conveying health related information to beneficiaries. She recommended integrating the more isolated pieces of health and health service that may constitute a basic science for teaching and practicing health care communication.

Process measures are needed to enable patients to make decisions about their own lives and the lives of their families. Beneficiaries should be provided with information on the ways in which and extent to which plans inform patients and encourage patients to participate in decisions about their own care. Research has shown that 99% of patients want to know what the treatment will accomplish; 98% of patients ant to know the side effects of their treatments, and more than 95% want to know exactly what the treatments will do (Cassileth, 1990). Providers are the primary conveyors of this information. Patients care enough about being active participants in their care to change physicians when their physicians do not communicate well or spend little time with them (Kasteler, 1976; Marquis, 1983). Physicians and nurses aren't the only conveyors of this information however. The strategic position of pharmacists in the health care system allows frequent interactions with many patients. Pharmacists are a potentially valuable resource for informing and educating patients, hopefully resulting in behavioral changes regarding compliance with treatment requirements.

The relationship of the literature review to this study provides the framework for understanding differences in beneficiary knowledge of the TRICARE program in the MHS. By highlighting where these differences exist, proposed models can be

developed to explain why the differences exist, and be

incorporated into the marketing plans at every level in the MHS.

Purpose of the Study

Three alternate hypotheses were developed for this study as

shown in Table 1. Their respective null hypotheses are not shown

but are easily discernible. Alternate hypothesis number 1 proposes

ADFM knowledge of TRICARE increases with a corresponding increase

in the number of TRICARE learning methodologies used by the ADFM

(quantitative). It is proposed that ADFMs who employ a variety of

TRICARE program learning methods will self report a higher

knowledge level about the TRICARE program than those ADFMs who use

fewer methods to learn about the program.

Alternate hypothesis number 2 predicts that beneficiary

knowledge of TRICARE differs as a result of the type of TRICARE

learning methodology employed (qualitative). This model predicts

that ADFM responses indicated differences between the eight

TRICARE learning methods relative to their self-reported knowledge

level of the TRICARE program. Simply put, the methods used by the

ADFMs to learn about the TRICARE program can be rank ordered as to

which methods produced the highest self reported knowledge level

of the program.

The last hypothesis is focused on behavior. Specifically,

what is the ADFM's behavior with regard to enrollment in TRICARE

Prime (as the dependent variable)? Independent variables, as self-

reported by the ADFM include: (a) knowledge levels of the TRICARE

Table 1.

Alternate Hypotheses Employed in Study

No.	Hypothesis
1	H_a = ADFM knowledge levels of the TRICARE program are a function of the number of ways the beneficiary indicated they learned about TRICARE (Quantitative).
2	H_a = ADFM knowledge levels of the TRICARE program are a function of the type of method the beneficiary indicated they learned about TRICARE (Qualitative).
3	H_a = ADFM enrollment in TRICARE Prime is a function of ADFM: (a) knowledge levels of the TRICARE program, (b) the number of methods used to learn about the TRICARE program and (c) beliefs about the TRICARE program.

Note. H_a is the alternate hypothesis

program, (b) the number of methods used to learn about the TRICARE program and (c) beliefs about the TRICARE program.

Methods and Procedures

Background of the Survey

The Defense Authorization Act for Fiscal Year (FY) 1995 (Public Law 102-484) mandated that the Secretary of Defense conduct an annual formal survey of persons receiving healthcare under chapter 5 of title 10, United States Code (USC), in order to determine the following:

1. Beneficiary source of care and private insurance coverage. Specifically, where do military beneficiaries receive their health care, and how do beneficiaries finance their health care? While all beneficiaries have some degree of coverage throughout the military benefit, some individuals elect to purchase private and supplemental policies.

2. Familiarity of beneficiaries with TRICARE, the new military managed care program. The DoD wants to explore how much beneficiaries know about the program, how they obtained their information, and their attitudes toward the program.

3. Beneficiary access and satisfaction with the health care they received in the past 12 months.

4. Beneficiary health status. Specifically, how healthy are military beneficiaries and how does health statuses vary by beneficiary category and location?

5. Any other matters as the Secretary determines appropriate.

The Annual HCSDB was designed to provide information that would be used for three primary purposes (U.S. Department of Defense, 1998). First, the survey fulfills the requirements of Public Law 102-484, as noted above. Second, the survey should provide the Office of the Assistant Secretary of Defense (Health Affairs) and the Services with information useful for improving health care delivery to its beneficiaries. Finally, the survey results provide a baseline for future evaluations of TRICARE's impact on health care delivery.

In accordance with the congressional mandate and requirements identified by DoD, the survey asked respondents questions designed to obtain the following information in six sections:

1. Use and source of care. This section asks beneficiaries 22 questions about annual visits, nights in a hospital, source of care, and insurance coverage.

2. Familiarity and attitudes toward TRICARE. This section asks how much beneficiaries know about TRICARE; where they obtained their information and how they think TRICARE will affect health care delivery.

3. Health Status. The 12 questions on health status provide general measures of lost duty time, well being, fatigue/energy, and physical and emotional health. Health status influences demand on healthcare and could be used to analyze levels of utilization, access, and quality.

4. Access to care. This section contains 25 questions that look at how easily beneficiaries enter the health care system (process measures) and whether they received necessary care (outcome measures).

5. Satisfaction with care. This section contains 54 questions about overall satisfaction with care received at military and civilian facilities and satisfaction with specific aspects of the care. A separate section also asks about satisfaction of Prime enrollees with care from their primary care manager.

6. Demographic information. This section asks about age, education, gender, ethnicity and race, beneficiary group and length of time in residence as well as other factors important to explaining health related behaviors and opinions.

Sampling Procedures

Beneficiaries received the survey by mail accompanied by a letter explaining its purpose and assuring them of confidentiality if they chose to respond. The Defense Manpower Data Center (DMDC) oversaw survey operations conducted by a contractor. During survey administration, the DMDC took several steps to encourage high response rates. First, address information was continuously updated throughout the mailings. Second, the DMDC adopted a four-stage mailing process:

1. In April 1996, each beneficiary in the sample with a valid address was mailed a notification letter. The letter told

recipients that they had been selected to participate and to expect a survey in the mail.

2.   In May 1996, surveys were mailed to each sample member.

3.   In June 1996, a thank you and/or reminder letter was sent to each member of the sample.

4.   In July 1996, individuals who did not return the survey were mailed a second copy of the questionnaire.

Sample of Beneficiaries

The sample of beneficiaries for the 1996 HCSDB was selected at random in catchment areas in the United States, overseas, and in noncatchment areas. To be eligible for the survey, the individual's record in the Defense Enrollment Eligibility Reporting System (DEERS) had to show that the individual met (a) eligibility for military health care benefits as of October 28, 1995, and (b) is age 18 years old or older. The total sample numbered 156,838 individuals, from a total beneficiary population of 6,455,915 eligibles. The large sample size reflects three key decisions about stratification, precision, and expected response rates. First, DoD health policy planners felt it was important to know how beneficiaries in each catchment area felt about their health care, and to make comparisons across catchment areas. This facet of the survey and others are beyond the scope of this research study, although they require disclosure to the reader. Consequently, the sample was stratified by six beneficiary categories and 149 catchment areas. Second, for each beneficiary

group within a catchment area, the margin of error should be no greater than +/- 0.10 at the 95 percent confidence level. Meeting this precision requirement for the survey instrument required approximately 90 to 100 respondents from each catchment area and beneficiary group combination. Finally, based on results of past health related surveys, estimated response rates of 50 percent for active duty personnel family members of active duty, and retiree family members under age 65; 65 percent for retirees under age 65 and retiree family members over age 65; and 75% for retirees over age 65 were derived (U.S. Department of Defense, 1994; U.S. Department of Defense, 1995).

Table 2 describes the 1996 HCSDB. Of the 30,725 ADFMs contacted or who were attempted to be contacted, 14,096 surveys were appropriately returned completed, yielding a response rate of 45.88 percent. These 14,096 returned surveys represent the first sub-group sample of the beneficiary focus group. The first sub-group sample was sub-grouped once more to include only those ADFM residing in catchment areas that offered the TRICARE Prime benefit to beneficiaries for at least six months. This constituted the second sub-group sample, n = 3,612. The rationale for this final cut is that the research interest lies with ADFM's knowledge of the TRICARE Prime benefit, and their behavior as described by their decision to enroll or not enroll in TRICARE Prime. The data set therefore included responses from ADFM exposed to TRICARE, with a choice of TRICARE Prime enrollment. Table 3 illustrates

Table 2

Frequency Distribution of 1996 HCSDB Sample Members by Beneficiary
Groups

Beneficiary group	Frequency (n)	Percent of sample
Active duty personnel	38,214	24.4
[a] Active duty family members (ADFM)	30,725	19.6
Retirees under age 65	22,205	14.2
Retirees Age 65 or over	17,145	10.9
Family members age 18-64 of retirees and survivors age 18-64	29,213	18.6
Family members age 65 or over of retirees and survivors age 65 or over	19,336	12.3
Total	156,838	100.0

[a] Represents the focus beneficiary group for this study

Table 3

Sub-grouping of Focus Beneficiary Group into Final Data Set

Group	n
ADFM (focus beneficiary group)	30,725
ADFM non-survey responses	16,629
ADFM survey responses	14,096
ADFM not in TRICARE prime offered regions	10,484
[a] ADFM in TRICARE prime offered regions	3,612

[a] Where TRICARE Prime was offered for at least six months (i.e., TRICARE Prime regions 6, 9, 10, 11 and 12). Responses from this group represent the data for this research effort.

this sub-grouping of the focus beneficiary group, to arrive at the final sub-group used for this study.

Defining the Data Set

The Program Analysis and Evaluation (PA&E) office of the TRICARE Management Activity (formerly the Defense Medical Resource Office of the Assistant Secretary of Defense for Health Affairs) is responsible for the annual HCSDB. The Program, Analysis and Evaluation office within the TRICARE Management Activity (TMA) maintains the codebook for each annual survey. The codebook documents all of the variables included in the 1996 HCSDB data base and provides essential information regarding how the variables are coded, and new variables are constructed. The naming conventions of the variables used for items in this survey capture the type of survey, the year of the survey and the questionnaire item. For example, question 1 is equivalent to the variable H9601. The first letter "H," indicates the type of survey (i.e., health care for beneficiaries 18 years old or older), and "96" indicates the year of the survey. The information following the year, "01" indicates the survey question.

For mark all questions, each response is treated as a separate variable in the coding scheme. Other naming conventions begin with "SR" (mnemonic for self-report), and are typically used for demographic questions. This includes variables such as gender (SRSEX), age (SRAGE), marital status (SRMARST), highest level of education (SRED), and race (SRRACE). Constructed variables have

naming conventions to set them apart from the original survey variables. These constructed variables include case weights, and over 100 additional variables required by the Office of the Assistant Secretary of Defense (Health Affairs). The Appendix lists the 30 variables used for this research, their definition, missing values and labels. Except for variable H9601, health status, the first seven variables are constructed variables. Variable number 17, TOTALWAY, is also a constructed variable, although it was constructed specifically for this research.

The data set for this research was obtained from the Office of the Assistant Secretary of Defense for Health Affairs (Program, Analysis and Evaluation). Records from the 1996 HCSDB were limited to ADFMs. The variables were sorted by the variable XTRICARE which was coded 1 for an ADFM in a TRICARE region where TRICARE Prime was offered for at least 6 months, zero otherwise. Only those ADFM residing in areas where TRICARE Prime was offered for six months were included in the final data set (TRICARE Regions 6, 8, 10, 11 &12). The variable XTRICARE was dropped, leaving a total of 30 variables (see Appendix).

The data set was imported into the file manager of the computer program, the Statistical Package for the Social Sciences (SPSS, Inc.). The original file was in ASCII format and was imported as comma delimited. Each variable was defined, recoded as necessary (i.e., zero for absence, one for presence), and missing values listed. An example of recoding a can be

illustrated with the following example. Question number 67 on the survey asked: "How much do you know about TRICARE?" Table 4 shows how the data was recoded according to accepted standards (i.e., zero for absence, one for presence), and that the difference between the response "A Little" and "Something" was at best minor, and in worse case, confusing as to which one was the greater amount.

Question number 68 asked: "How have you learned about TRICARE? MARK ALL THAT APPLY." The choices for this question are listed in Table 5. However, in order to analyze the data, each choice was treated as a separate question, in binary form. Each choice in Table 5 is considered an item. If the item is marked, it was coded as 1; if unmarked, the code was zero. The constructed variable, "TOTALWAY" is the sum of the items, B through I, whose range of appropriate responses is 0 and 8 (item A does not apply).

Analysis

The statistical analyses will be performed using the Statistical Package for Social Sciences (SPSS), version 7.5 for windows. Comparisons will be used to analyze the sample population and take into account demographic characteristics (i.e., age, educational level, sex, etc.). The first alternate hypothesis predicts that ADFM knowledge levels of the TRICARE program are a function of the number of ways the beneficiary indicated they learned about TRICARE. A regression analysis will

Table 4

Recoding of Old Variable H9667 into New Variable H9667r: How much do you know about TRICARE?

Old Label	Value	New Label	New Value
Nothing	1	Nothing	0
A Little	2	A Little/Something	1
Something	3	A Great Deal	2
A Great Deal	4		

Table 5

Responses for the question: "How have you learned about TRICARE? MARK ALL THAT APPLY."

Item	Label
A	Does not apply, I have received no information about TRICARE
B	I attended a presentation about TRICARE
C	I read an information package mailed to my home
D	I talked to a military doctor or medical provider about TRICARE
E	I talked to a civilian doctor or medical provider about TRICARE
F	I called the TRICARE information number
G	I read about TRICARE in the base newspaper
H	I talked to my friends and neighbors about TRICARE
I	Some other source

be used to describe this relationship between the dependent variable, TRICARE knowledge, and the independent variable, number of ways the ADFM used to learn about TRICARE. Mangelsdorff (1994) studied patient beneficiary survey results from U.S. Army military medical treatment facilities and concluded the co-variants chosen (i.e., demographics and health status) were highly significant on almost every analysis.

The second alternate hypothesis predicts that ADFM knowledge levels of the TRICARE program are a function of the type of method the beneficiary indicated they learned about TRICARE. There will be differences between which specific method of learning about TRICARE produced the greatest amount of self-reported knowledge. Cross tabulation will initially be produced to determine which method(s) were employed by ADFM that yielded the highest self-reported knowledge about TRICARE. Additionally, a ranking table will be produced that compares Pearson Chi Square, Spearman correlation, and Fisher's Exact T Test for each method of learning relative to TRICARE knowledge.

Lastly, the third alternate hypothesis analyzes ADFM behavior in three sub-areas. It predicts that ADFM enrollment in TRICARE Prime is a function of the knowledge levels of the TRICARE program ADFM. A Spearman's correlation coefficient will be generated. Secondly, this third alternate hypothesis predicts that enrollment in TRICARE is a function of the number of methods used by the ADFM to learn about the TRICARE program. A regression analysis will be

used to describe this relationship between the dependent variable, TRICARE enrollment, and the independent variable, the number of ways the ADFM used to learn about TRICARE. Lastly the alternate hypothesis estimates that a correlation exists between the beliefs of the ADFM about the TRICARE Program and enrollment in TRICARE Prime. The belief variables employed in this analysis are variables H9669A-H9669J (numbers 19-28) as shown in the Appendix. Nonparametric correlations will be generated to describe this relationship.

Validity and Reliability

The validity of the survey instrument was established by conducting two pretests on random members of the population. After completing the pretest, the surveyors sat down with those surveyed and discussed each question to ensure they were worded correctly. They also ensured that the respondents were interpreting the questions as they were intended. Gilbert, Longmate, and Branch (1992) raised question as to the reliability of mail-out surveys. Although they did not find significant problems, they described several biases one needs to be wary of when examining this type of survey. For the purpose of this study, it is assumed that the survey instrument is both valid and reliable.

Results and Discussion

Demographics

Health Status.

The health status of respondents was tabulated using a five-point Lickert scale (1=excellent to 5=poor). Health Status as a function of ADFM respondent demographics is presented in Table 6. Cross-tabulation row percentages were analyzed for differences and will be discussed if relevant.

Gender.

Ninety-four percent of the ADFM respondents were female. This is an expected result due to the large proportion of males to females in the armed services. Although congruent percentages of females and males indicated their health status was excellent (23.2% and 22.2% respectively), a larger percentage of females indicated their health status was very good than males (44.0% versus 37.3% respectively. However, this difference was almost all compensated by males having 32.4% ADFMs indicating they had a good health status relative to 27.0 % of females. Thus the frequency distribution for females is narrower for males whose frequency distribution is flatter and skewed left. Perhaps these differences can be explained by the size of the two groups. The female group is 15 times that of the male group.

Age group.

As expected, the mean health status was negatively correlated with age. Active Duty Family Member respondents were more likely

Table 6

Demographics and Health Status of Respondents (n=3612)

| Demographics | Health status | | | | |
| | Poor | Fair | Good | Very good | Excellent |
	1	2	3	4	5
Gender					
Male	2	16	73	84	50
Female	21	174	912	1485	785
Age					
18-24	4	39	205	337	133
25-34	9	71	394	727	440
35-44	7	44	303	400	220
45-54	2	23	63	91	39
55-64	0	6	13	13	1
65 + years	1	7	7	1	2
Race					
White	17	108	659	1160	626
Black/African-American	2	22	92	111	46
American Indian/Eskimo	0	0	8	9	7
Asian or Pacific Islander	2	29	106	127	70
Other	2	29	101	135	63
Education level					
No high school diploma	2	21	48	39	12
GED/HS equivalency	4	36	41	19	100
Educational level (continued)					

	Health status				
	Poor	Fair	Good	Very good	Excellent
Demographics	1	2	3	4	5
HS diploma	6	52	242	297	135
Some college, no degree	5	70	356	550	213
2-Year college degree	8	21	115	194	125
4-Year College Degree	10	106	283	196	595
Some graduate school	1	4	42	88	55
Masters, doctorate or professional	1	5	33	71	72

to indicate their health status was very good if they were 54 years old or under. Between 55-64 years old ADFM were most likely to indicate good or to slightly lessor extent, very good. Sixty-five or older ADFMs were most likely to choose their health status was fair or good.

Race.

The most frequently chosen level of health status for all categories of race was very good. Whites had the highest percentage of their group choose very good (45.1%) and American Indian/Eskimo had the lowest percentage (37.5%). However, American Indian/Eskimo represents less than 1% of the total respondents.

Education Level.

From the education level GED/High School (HS) equivalency through to some graduate school, the most frequently chosen level of health chosen was very good. The relationship is directly positive. Those without a HS diploma indicated their health was good, and for the choice fair, only this group had a double-digit figure for health status below fair (17.2% for fair). The second most frequent choice for GED/HS equivalency, HS diploma and some college was good, whereas ADFM with education level greater than GED/HS equivalency, had excellent indicated as the second most frequent health status (except for those with masters or doctorates who had an equal number of respondents indicate they had a very good or excellent health status).

TRICARE Knowledge and Number of Learning Methods

A frequency histogram of ADFM knowledge of TRICARE is shown at Figure 1. The data is normally distributed along the horizontal axis containing three points: (a) 0.00 = Nothing, (b) 1.00 = little/something, and (c) 2.00 = a great deal. Alternate hypothesis 1 predicts that ADFM knowledge levels of the TRICARE program, the dependent variable, are a function of the number of ways the beneficiary indicated they learned about TRICARE (independent variable). Figure 2 shows the mean of the dependent variable displayed against the independent variable, and the positive correlation that exists between them. Figure 3 illustrates the same positive correlation using the mode of the TRICARE knowledge instead of the mean. The mode is the appropriate measure of central tendency for nominal data, though it can be visualized using either measure.

The relationship between ADFM knowledge of the TRICARE program and the number of methods used to learn about the program was highly significant with $t(3590) = 40.53$, $p < .0001$. The null hypothesis is therefore rejected and the alternate hypothesis accepted. Active Duty Family Members will self-report they know more about the TRICARE program by exposing themselves to increasing methods of learning about TRICARE. In fact, they may also be actually learning more about the TRICARE program. The Spearman's correlation coefficient was 0.673, and the regression equation is: TRICARE knowledge = 0.51 + 0.26*(# of methods used by
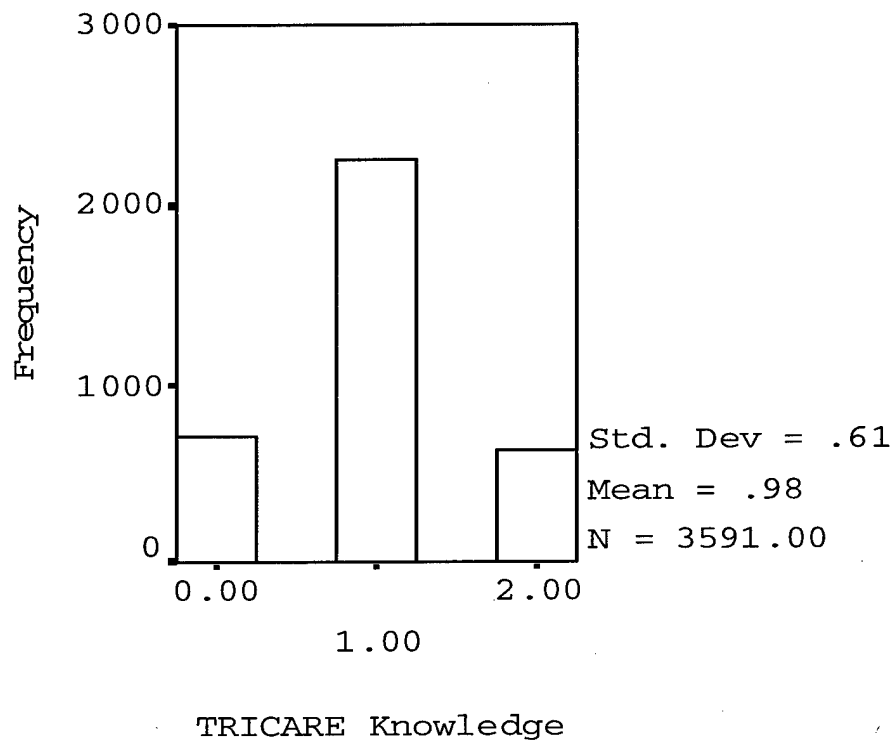
Figure 1. Responses from ADFMs, where 0.00 = nothing, 1.00 = little/something and 2.00 = a great deal (n = 3,612, with 21 missing cases)

No. of Methods Used to Learn About TRICARE

Figure 2. Relationship of the mean of TRICARE knowledge level
(0.0 = nothing, 1 = a little/something, and 2.0 = a great deal)
and the number of used to learn about the TRICARE program.

No. of Methods Used to Learn About TRICARE

Figure 3. Relationship of the mode of TRICARE knowledge level

(0.0 = nothing, 1.0 = a little/something, and 2.0 = a great deal)

and the number of methods used to learn about the TRICARE program.

the ADFM). Self-reporting of TRICARE knowledge will increase 0.26 units for every method employed by the ADFM to learn about TRICARE.

TRICARE Knowledge and the Type of Learning Method

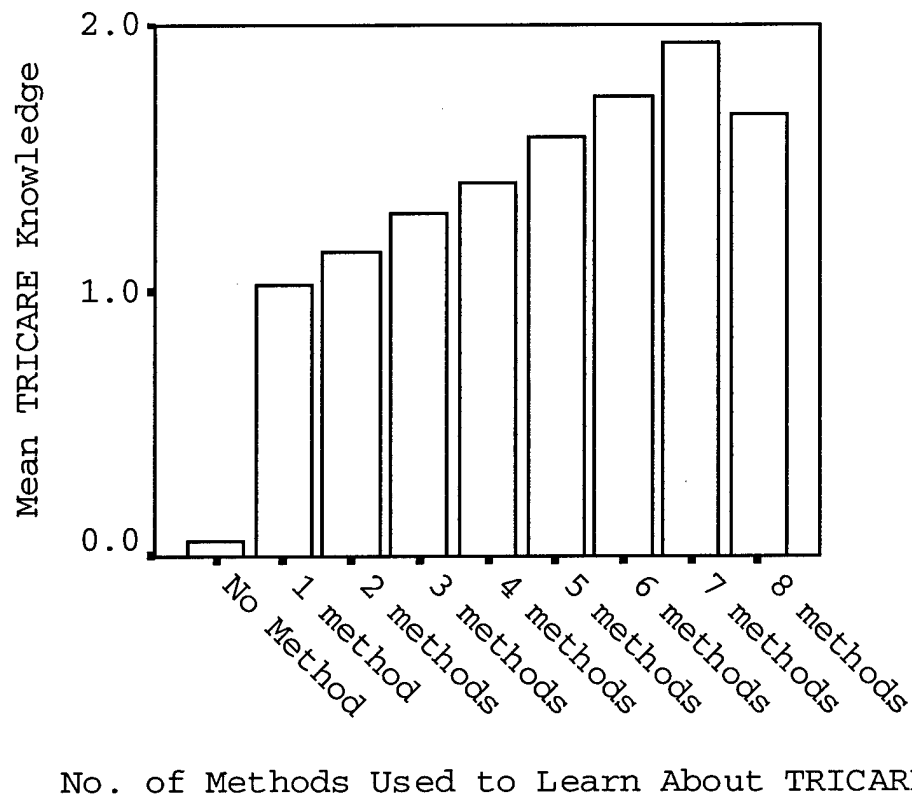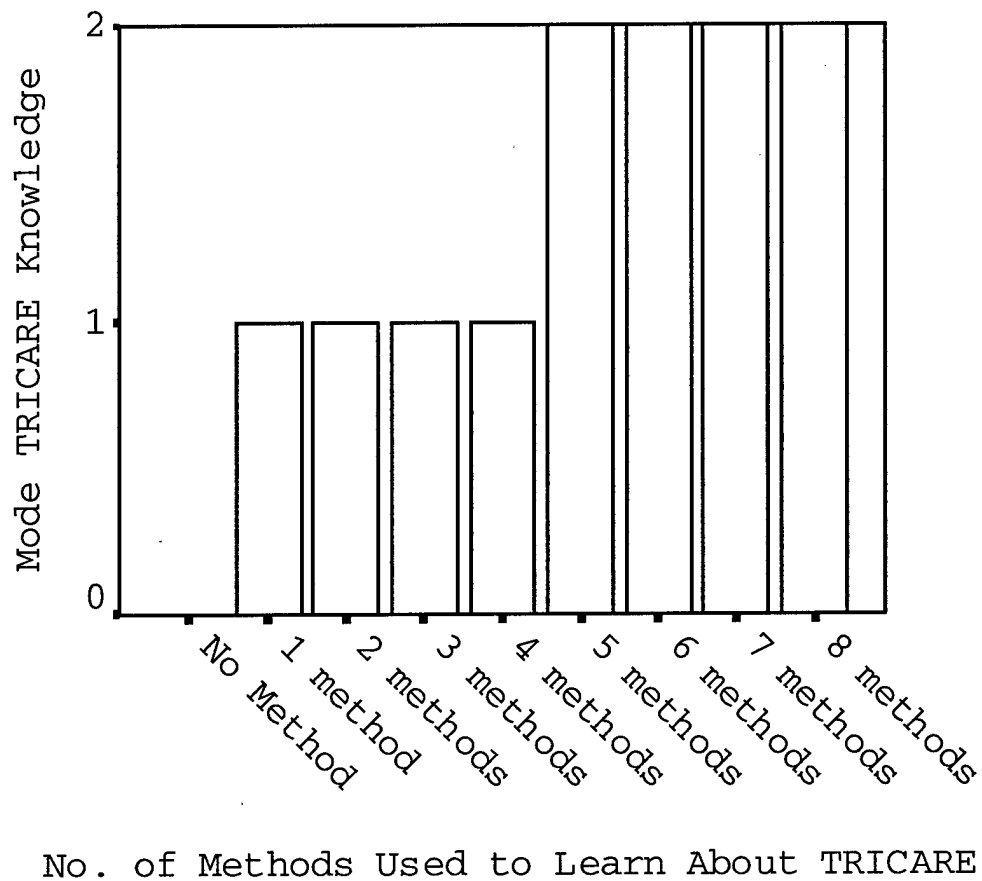The second alternate hypothesis predicts that ADFM knowledge levels of the TRICARE program are a function of the type of method the beneficiary indicated they learned about TRICARE. The Chi Square analysis resulted in a relationship that was highly significant ($p < .0001$) for all methods. The probability of this relationship being due to chance alone is less than one out of 10,000; rather small odds to believe that TRICARE knowledge has no relationship to the type of method the ADFM used to learn about it. Table 7 shows that there are differences between TRICARE learning methods from ADFM respondents concerning self-reported TRICARE knowledge levels, and these differences can be rank ordered. The three statistical tests used for this analysis are Pearson Chi Square, Spearman correlation, and Fisher's exact T test. The results indicate that: "reading the TRICARE information packet mailed to your home" is the best method for ADFMs to indicate they have a higher knowledge of TRICARE. "Attending a TRICARE presentation" ranks second. Although the Fisher's exact T test ranks "talked with friends about TRICARE" third, the other two tests ranks "called the TRICARE information number" as third. Graphical cluster bar representations of the relationship between

Table 7

TRICARE knowledge level as a function of the type of method used

Independent variable	Pearson Chi Sq.	Spearman correlation	Fisher's exact t test
Read information packet			
mailed to home	931 (1)	.479 (1)	1125 (1)
Attend TRICARE presentation	432 (2)	.344 (2)	506 (2)
Called TRICARE information #	388 (3)	.322 (3)	433 (4)
Talked with friends	347 (4)	.283 (4)	449 (3)
Talked w/ military physician	233 (5)	.254 (5)	292 (6)
Read about TRICARE in base			
newspaper	229 (6)	.242 (6)	305 (5)
Talked w/ civilian physician	155 (7)	.195 (7)	149 (7)
Other source	121 (8)	.173 (8)	143 (8)

Notes: (1) Dependent variable: TRICARE knowledge level

(2) Relative column rankings in parentheses

(3) Relationships are significant at $p < .0001$

ADFM knowledge of TRICARE and the independent variables of TRICARE learning methodologies, are shown in Figures 4, 5 and 6. These graphs truly show that ADFMs who use one of these three methods to learn about TRICARE, are extremely likely to indicate they know "a little/something" or "a great deal" about TRICARE. Those who don't are more likely to indicate they know either "nothing" or "a little/something".

Enrollment in TRICARE Prime

The third and final hypothesis looked the behavior of ADFM with respect to their decisions to enroll in TRICARE Prime.

Enrollment as a function of ADFM knowledge of the TRICARE Program.

The graphical representation of this relationship is illustrated in Figure 7, and shows that as ADFMs learn more about TRICARE, the more likely they are to be enrolled in TRICARE Prime. Although the measure of central tendency for nominal data is the mode, it is easy to see that this measure would produce a graph whereby those who most frequently indicated they knew "nothing" about TRICARE would not be enrolled in TRICARE Prime. Those who most frequently indicated they knew "a little/something" or "a great deal" would be enrolled in TRICARE Prime. The relationship between TRICARE Prime enrollment and TRICARE knowledge was found to be significant at $p < .01$, and a Spearman's correlation coefficient of 0.357 was generated. The probability these results

Figure 4. Cluster bar graph of TRICARE knowledge level and reading TRICARE information package.
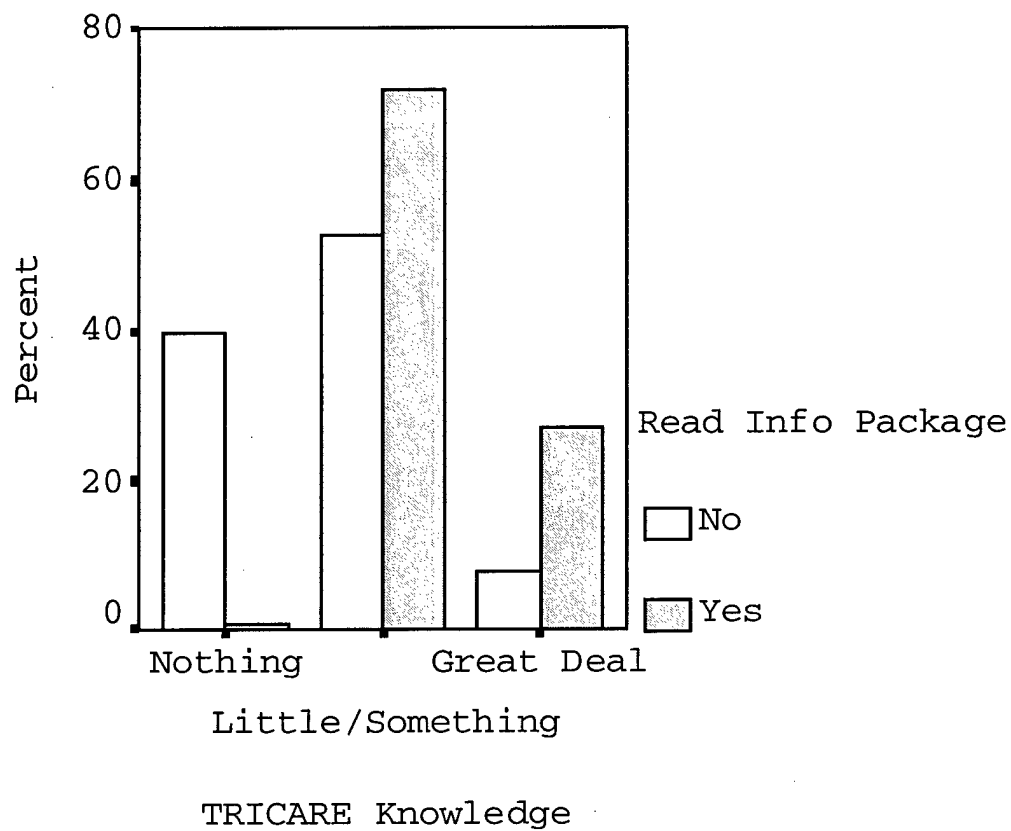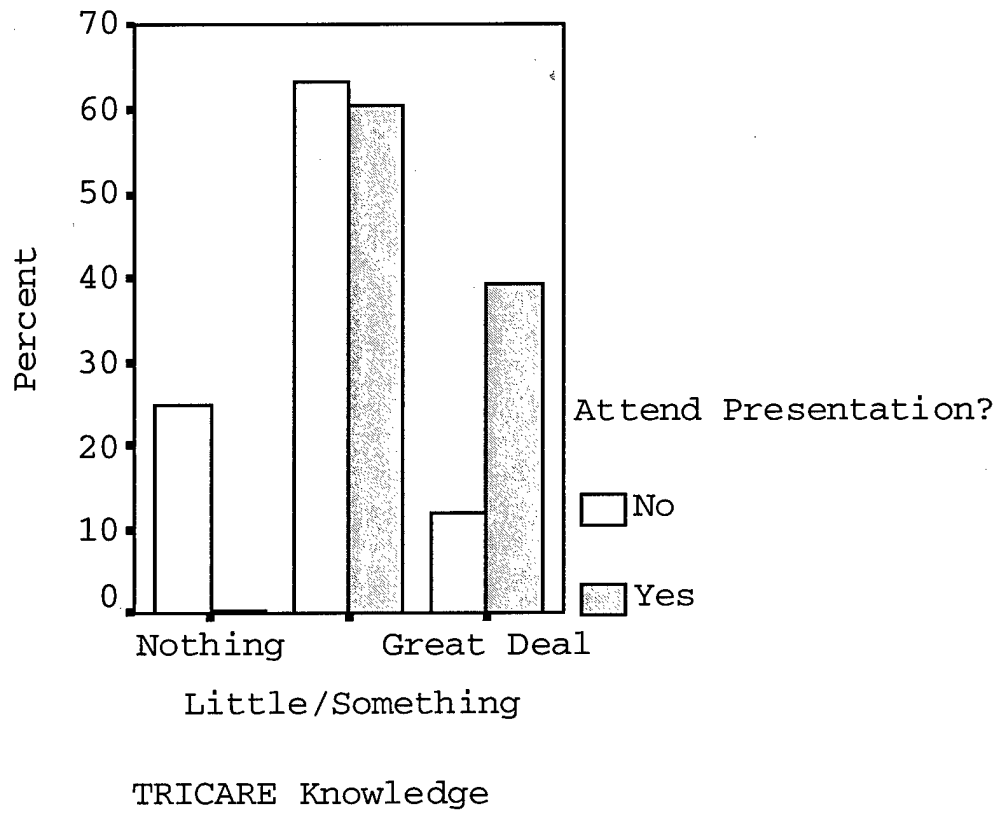
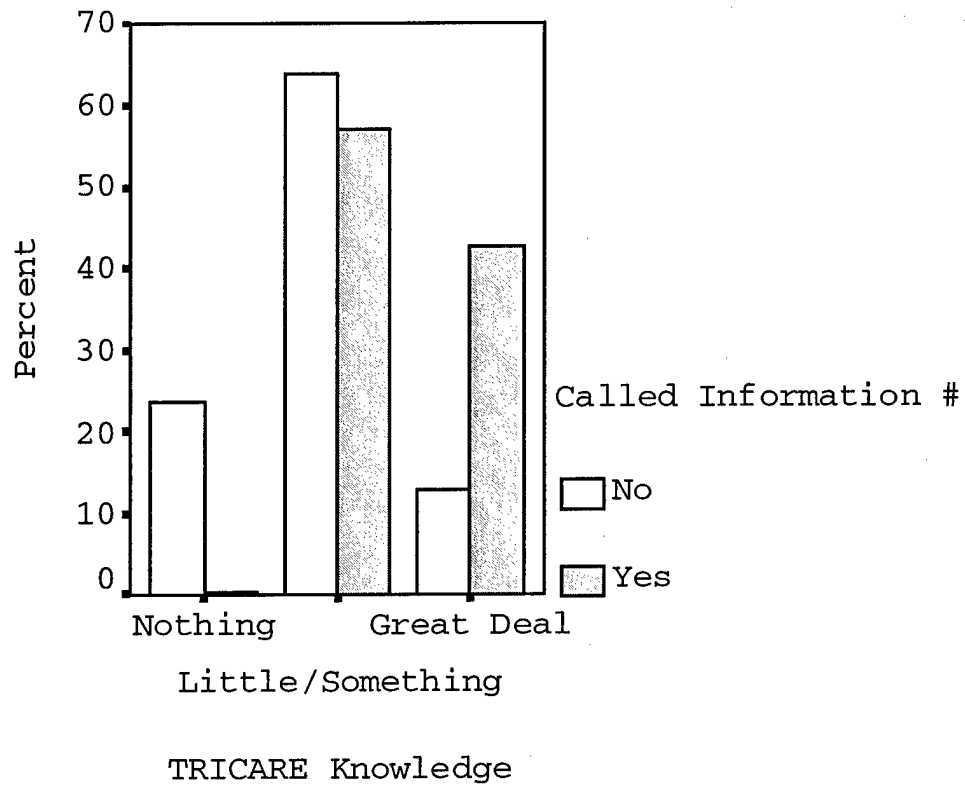Figure 5. Cluster bar graph of TRICARE knowledge level and attending a TRICARE presentation.

Figure 6. Cluster bar graph of TRICARE knowledge level and calling the TRICARE information number.
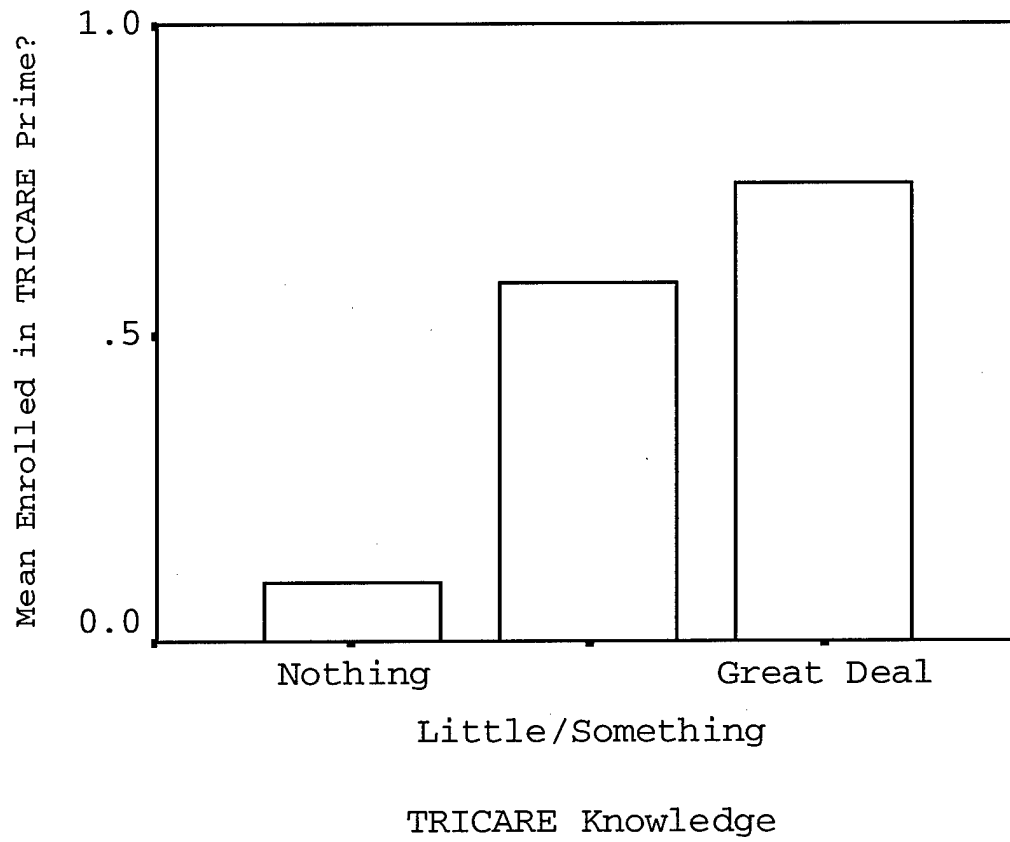
Figure 7. Mean enrollment of ADFM beneficiaries in TRICARE Prime and their self-reported TRICARE knowledge level (0 = not enrolled in TRICARE prime; 1 = enrolled in TRICARE Prime).

being due to chance alone is less than one out of a hundred.

Enrollment as a function of the number of methods used to learn about the TRICARE program.

The graphical representation of this relationship is illustrated in Figure 8, and shows that as ADFMs learn more about TRICARE, the more likely they are to enroll in TRICARE Prime. The graphical results at a number of methods of six or greater are skewed and can be explained by the fact they represent less than 1.8% (66) of the total responses (3612). The relationship between TRICARE enrollment and the number of methods used to learn about the TRICARE program was highly significant with, $t(3003) = 22.91$, $p < .001$. The null hypothesis is therefore rejected and the alternate hypothesis accepted. Perhaps ADFMs enroll in TRICARE Prime by exposing themselves to increasing methods of learning about the TRICARE program. Another explanation could be that ADFMs have already enrolled in TRICARE Prime and feel they need to justify their decisions.

The Spearman's correlation coefficient was 0.349, and the regression equation is: TRICARE enrollment = 0.331 + 0.108*(# of methods used by the ADFM). Enrollment in TRICARE Prime will increase 0.108 units for every method employed by the ADFM to learn about TRICARE.
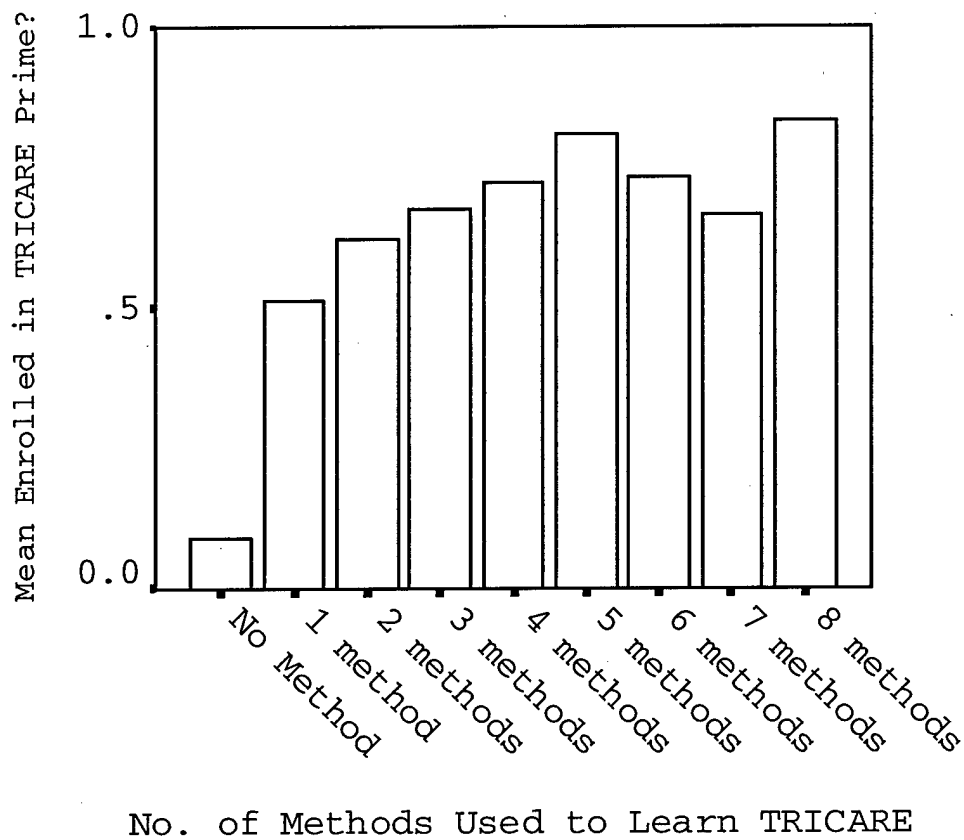
Figure 8. Relationship of mean of TRICARE Prime enrollment

(0 = not enrolled, 1 = enrolled), and the number of methods used

learning about the TRICARE program.

Enrollment as a function of the beliefs of the ADFM about the TRICARE program.

The Appendix lists the "belief" variables used for this analysis beginning with variable number 19, H9669A ("I have clear information on TRICARE enrollment) and ending with variable number 28, H9669J ("I need more information about TRICARE"). The largest Spearman's correlation coefficient for the dependent variable "enrolled in TRICARE Prime" was for the belief that ADFMs "have clear information on TRICARE enrollment" (Spearman's rho = 0.418) and "I know how to make an appointment under TRICARE" (Spearman's rho = .373). All relationships were statistically significant with p < .001. Figure 9 shows this relationship graphically. As can be seen, ADFMs who agree or strongly agree with the statement: "I have clear information about TRICARE enrollment" are more likely to be enrolled in TRICARE Prime. Those who predominately disagree or who strongly disagree with the statement are more likely not to be enrolled in TRICARE Prime.

Conclusions

Statistically significant relationships were found to exist between: ADFM TRICARE program knowledge and: (a) the number of methods used to learn about TRICARE t(3590) = 40.53, p < .0001 and (b) the type of method used to produce the highest levels of self
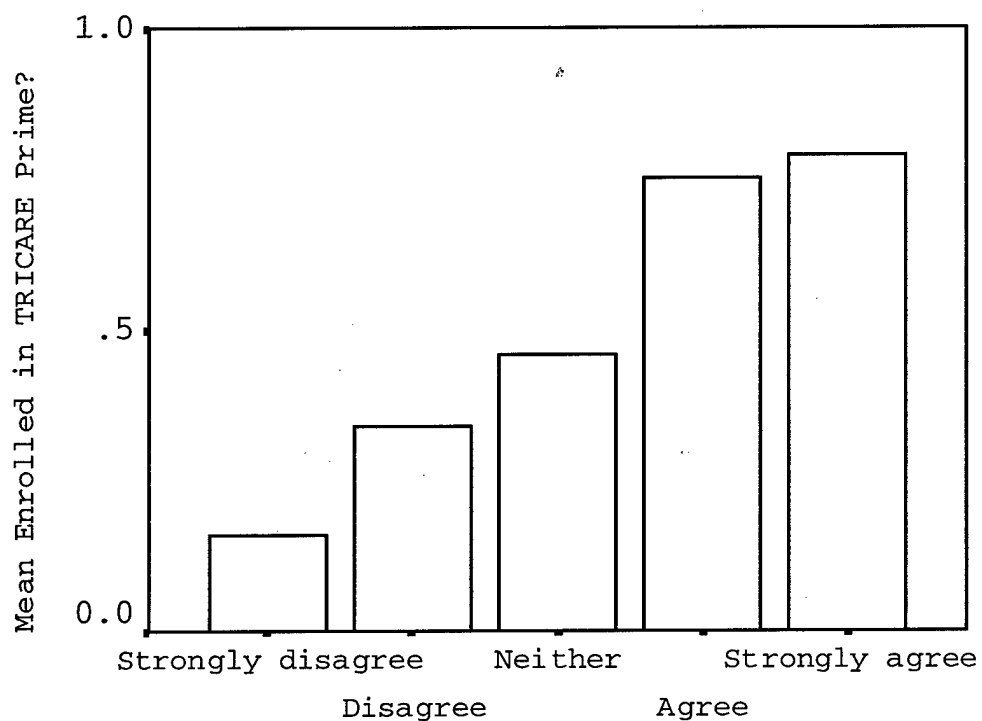
Figure 9. Graphical relationship between enrollment in TRICARE Prime and agreement/disagreement with the statement: I have clear information about TRICARE enrollment (0.0 = not enrolled, 1.0 = enrolled).

reported TRICARE knowledge (p < .0001). The top three methods for generating the highest self reported TRICARE program knowledge were: (a) reading the TRICARE information packet mailed home, (b) attending a TRICARE presentation, and (c) calling the TRICARE information number. Statistically significant relationships were found to exist between TRICARE Prime enrollment and: (a) TRICARE knowledge levels, p < .01 (Spearman's correlation coefficient = 0.357), (b) the number of TRICARE learning methods used, t(3003) = 22.91, p < .001, and (c) beliefs of the ADFM toward TRICARE, such that those ADFMs who believed they had clear information on enrollment procedures or they knew how to make an appointment under TRICARE Prime scored the highest correlations (Spearman's rho = 0.418 and 0.373 respectively) with p < .001.

Recommendations

An ADFM knowledgeable of their health plan will be better able to arrange necessary health care services and be more satisfied with those services for their family. Interpretation of the data through statistical analyses can help design optimal marketing and beneficiary educational strategies and identify the distinct information needs of different groups of beneficiaries. The utility of this information in enabling TRICARE to succeed, and military medicine to continue, cannot be overstated.

The Survey Instrument (The HCSDB)

With regard to the survey instrument it is imperative that question number 67 on the 1996 HCSDB be modified to a five-point Lickert adjective relative rating scale, anchored at both ends. If this is not possible than conversion to an interval scale, such as question number 1 on health status is most appropriate (i.e., 1 = poor, 2 = fair, 3 = good, 4 = very good and 5= excellent). The 1996 HCSDB has limited potential for discerning the differences between choices of: "a little" and "something". The other problem is that the interval property of equal distances between the choices is nonexistent for this variable.

Secondly, it was noted that coding of variable responses without an attribute were coded as 1 vice the normal convention of 0. For instance the choice of "nothing" for the question: "How much do you know about TRICARE?" was coded 1. Adoption of this recommendation would eliminate the effort required to recode variables needed to appropriately perform data analysis by health care researchers.

Lastly, there was much effort put forth to convert the ASCII file into a delimited test file able to be read by SPSS. Additionally, the software used by the health care researchers in the Armed Services is SPSS. It is recommended that SPSS be adopted by the Program, Analysis and Evaluation office of the TRICARE Management Activity.

MHS Policy and Operations

The research has conclusively shown that exposure of ADFMs to a broad array of TRICARE marketing and educational strategies provides them with a high confidence level of knowledge about their health care benefits in the Military health System. The research has shown that although all eight marketing mix strategies and beneficiary educational instruments are statistically significant in educating our ADFMs, the focus of resources should be targeted at: (a) developing informative and simple-to-read TRICARE information packets mailed home, (b) increasing attendance by ADFMs at well-planned and enlightening TRICARE presentations, and (c) overseeing the TRICARE information contracts to ensure accurate, timely and instructive conversations occur when ADFM call the TRICARE information number. Those who understand how to enroll in TRICARE Prime, and have clear information about TRICARE Prime are most likely to be enrolled in TRICARE Prime. Alternatively, more research is needed to determine if ADFMs already enrolled in TRICARE Prime simply justified their decisions by indicating they had clear information about the TRICARE program and/or employed a variety of methods to learn about the program. It is recommended that health care marketers at all levels within the MHS continue the challenge to educate our ADFMs about enrollment procedures and continue to provide them clear information about the TRICARE Prime benefit.

These relationships provide a window into the critically important marketing mix strategies and beneficiary educational

instruments that need to be developed and implemented by military health care policy makers to ensure survival of TRICARE military medicine as we know it today. In this regard, the MHS shares the vision of all managed care organizations: to provide the right amount of care, at the right time, at the right place, and to the right beneficiary.

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Appendix

List of variables on the working file

1996 Health Care Survey of DoD Beneficiaries

H9601   Health Status

1

        Missing Values: 6 thru *

        Value   Label

            1   Poor

            2   Fair

            3   Good

            4   Very Good

            5   Excellent

XSEXA

2

            Value   Label

                0   Male

                1   Female

SRAGERGP   Age Group

3

       Missing Values: 7 thru 999

       Value   Label

         1   18-24 yrs

         2   25-34 yrs

         3   35-44 yrs

         4   45-54 yrs

         5   55-64 yrs

         6   >= 65 yrs

SREDHIGH   Highest Education Level Achieved

4

       Missing Values: 9 thru *

       Value   Label

         1   No HS Diploma

         2   GED/HS Equivalency

         3   HS Diploma

         4   Some College, No Degree

         5   2-Year College Degree

         6   4-Year College Degree

         7   Some Graduate School, No Degree

         8   Masters, Doctorate, or Professional

SRRACER   Race

5

          Missing Values: 6 thru *

          Value   Label

             1   White

             2   Black/African-American

             3   American Indian/Eskimo

             4   Asian or Pacific Islander

             5   Other

XREGION   TRICARE Region

6

          Missing Values: 15 thru **

          Value   Label

             1   Northeast

             2   Mid-Atlantic

             3   Southwest

             4   Gulfsouth

             5   Heartland

             6   Southwest

             7   Desert States

             8   North Central

             9   Southern California

            10   Golden Gate

```
        11      Northwest

        12      Hawaii Pacific

        13      Alaska

        14      Overseas


H9667R      TRICARE Knowledge

7

        Missing Values: 3 thru 999

        Value      Label

            0      Nothing

            1      Little/Something

            2      Great Deal


H9668A      Have You Received TRICARE Information?

8

        Missing Values: 2 thru *

        Value      Label

            0      No TRICARE Information

            1      Yes, TRICARE Information
```

H9668B   Attend Presentation?

9

        Missing Values: 2 thru *

        Value   Label

          0   No

          1   Yes

H9668C   Read Information Package Mailed to Home?

10

        Missing Values: 2 thru *

        Value   Label

          0   No

          1   Yes

H9668D   Talked w/Military Physician?

11

        Missing Values: 2 thru *

        Value   Label

          0   No

          1   Yes

—

H9668E   Talked w/Civilian Physician?

12

          Missing Values: 2 thru *

          Value   Label

             0   No

             1   Yes

H9668F   Called TRICARE Information Telephone Number?

13

          Missing Values: 2 thru *

          Value   Label

             0   No

             1   Yes

H9668G   Read About TRICARE in Base newspaper?

14

          Missing Values: 2 thru *

          Value   Label

             0   No

             1   Yes

H9668H   Talked to Friends About TRICARE?

15

        Missing Values: 2 thru *

        Value   Label

          0   No

          1   Yes

H9668I   Some Other Source?

16

        Missing Values: 2 thru *

        Value   Label

          0   No

          1   Yes

TOTALWAY   Number of Methods Used to Learn About TRICARE

17

        Value   Label

          0   No Method

          1   1 method

          2   2 methods

          3   3 methods

          4   4 methods

          5   5 methods

          6   6 methods

          7   7 methods

          8   8 methods

H9670R   Enrolled in TRICARE Prime?

18

Missing Values: 2 thru *

Value   Label

    0   No

    1   Yes

    2   Don't Know

H9669A   I have clear information on TRICARE enrollment

19

Missing Values: 6 thru 999, 0

Value   Label

    1   Strongly disagree

    2   Disagree

    3   Neither agree nor disagree

    4   Agree

    5   Strongly agree

H9669B   TRICARE will increase my access

20

         Missing Values: 6 thru 999, 0

         Value   Label

             1   Strongly disagree

             2   Disagree

             3   Neither agree nor disagree

             4   Agree

             5   Strongly agree

H9669C   I am confused about TRICARE costs

21

         Missing Values: 6 thru 999, 0

         Value   Label

             1   Strongly disagree

             2   Disagree

             3   Neither agree nor disagree

             4   Agree

             5   Strongly agree

H9669D   I will have better preventive care under TRICARE

22

          Missing Values: 6 thru 999, 0

          Value   Label

              1   Strongly disagree

              2   Disagree

              3   Neither agree nor disagree

              4   Agree

              5   Strongly agree

H9669E   TRICARE will make it easier for me to see a specialist

23

          Missing Values: 6 thru 999, 0

          Value   Label

              1   Strongly disagree

              2   Disagree

              3   Neither agree nor disagree

              4   Agree

              5   Strongly agree

H9669F   TRICARE will allow me to see the same doctor for each

24   visit

Missing Values: 6 thru 999, 0

Value   Label

1   Strongly disagree

2   Disagree

3   Neither agree nor disagree

4   Agree

5   Strongly agree

H9669G   I know how to make an app't under TRICARE

25

Missing Values: 6 thru 999, 0

Value   Label

1   Strongly disagree

2   Disagree

3   Neither agree nor disagree

4   Agree

5   Strongly agree

H9669H   TRICARE will make it easier to get phone advice

26

Missing Values: 6 thru 999, 0

Value   Label

1   Strongly disagree

2   Disagree

3   Neither agree nor disagree

4   Agree

5   Strongly agree

H9669I   TRICARE will cause me to spend more money for health

27   care

Missing Values: 6 thru 999, 0

Value   Label

1   Strongly disagree

2   Disagree

3   Neither agree nor disagree

4   Agree

5   Strongly agree

H9669J   I need more information on TRICARE

28

           Missing Values: 6 thru 999, 0

           Value   Label

                1   Strongly disagree

                2   Disagree

                3   Neither agree nor disagree

                4   Agree

                5   Strongly agree

H9616R   Smoking Habits

29

           Missing Values: 3 thru *

           Value   Label

                0   Never Smoked

                1   Current Smoker

                2   Ex Smoker

H9666   Hear About TRICARE?

30

           Missing Values: 2 thru *

           Value   Label

                0   No

                1   Yes

REPORT DOCUMENTATION PAGE

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13. ABSTRACT (Maximum 200 words)

Differences in Active Duty Family Member (ADFM) self-reported knowledge of the Department of Defense's TRICARE progam, were investigated. The sample includes ADFMs residing in TRICARE regions 6, 9, 10, 11, and 12 (n = 3,612) and their responses to the 1996 Health Care Survey of Department of Defense (DoD) Beneficiaries (HCSDB). Self-reported knowledge of TRICARE, use of beneficiary marketing and educational methods, and enrollment in TRICARE Prime were investigated. Statistically significant relationships were found to exist between (a) ADFM TRICARE program knowledge and the number of methods used to learn about TRICARE $t(3590) = 40.53$, $p < .0001$ and (b) the type of method used to produce the highest levels of self reported TRICARE knowledge ($p < .0001$). The top three methods for generating the highest self-reported TRICARE program knowledge are described. Additionally, statistically significant relationships were found to exist between TRICARE Prime enrollment and (a) TRICARE knowledge levels, $p < .01$ (Spearman's correlation coefficient = 0.357) and (b) the number of TRICARE

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